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VERTICAL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI

ATTACHMENT NOT INCLUDED

IN THE MATTER OF:)
HERCULES INCORPORATED)
RESPONDENT)
Proceeding Under Sections)
104(a), 106(a) and 122(d)(3))
of the Comprehensive Environ-)
mental Response, Compensation,)
and Liability Act of 1980)
42 U.S.C. §9604(a), §9606(a),)
§9622(d)(3) as Amended by the)
Superfund Amendments and)
Reauthorization Act of 1986,)
P.L. 99-499.)

ADMINISTRATIVE ORDER ON CONSENT
DOCKET NUMBER CERCLA VI-07-88



I. JURISDICTION

1. This ADMINISTRATIVE ORDER ON CONSENT ("CONSENT ORDER") is issued by the Regional Administrator of Region VI of the United States Environmental Protection Agency ("EPA") to Hercules Incorporated ("Hercules"), the Respondent herein, pursuant to the authority vested in the President under Sections 106(a) and 122(d)(3) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §9606(a), 9622(d)(3), as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA") and delegated to the Administrator of the U.S. EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923, and further delegated to the Regional Administrator, Region VI. This CONSENT ORDER is issued in accordance with the provisions of Sections 104(a), 106(a), and 122(a) of CERCLA, 42 U.S.C. §§9604(a), 9606(a), 9622(a).

2. Notice of the issuance of this CONSENT ORDER has heretofore been given to the State of Arkansas.

3. Complainant, the Regional Administrator, and the Respondent hereby consent and agree to this CONSENT ORDER, subject to the provisions of Section I, Subparagraph 4 herein. The Respondent agrees to undertake all actions required of it by the terms and conditions of this CONSENT ORDER and not to contest EPA jurisdiction regarding this CONSENT ORDER.

4. Neither Respondent's consent, nor anything in this CONSENT ORDER, shall constitute an admission by Respondent of any legal or factual matter set forth herein, including, but not limited to, any findings, conclusions, or determinations.

It is EPA's position that under the Consent Decree entered January 18, 1982 in USA, ADPC&E v. Vertac Chemical Corporation et al., Nos. LR-C-80-109 and 110, EPA retained the right to issue administrative orders under CERCLA against Respondent with respect to the Vertac Offsite Area. Respondent disagrees with this interpretation of the Consent Decree; but, for the purposes of this administrative order only, Respondent agrees not to challenge EPA's authority and jurisdiction to issue this administrative order.

II. STATEMENT OF PURPOSE

5. In entering into this CONSENT ORDER, the mutual objectives of EPA and Hercules are to determine more fully the nature and extent of any threat to the public health or welfare or the environment caused by the release or

threatened release of hazardous substances, pollutants or contaminants from the off-site areas contaminated with hazardous substances previously released from the Vertac plant located in Jacksonville, Arkansas (the "Vertac Offsite Area", as further defined in Section III, Subparagraph 13 herein).

6. The activities conducted pursuant to this CONSENT ORDER are subject to approval by EPA and shall be consistent with CERCLA, the National Contingency Plan, 40 CFR Part 300 et seq., including any applicable amendments or revisions thereto (NCP), and EPA policy and guidance documents.

III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

7. Vertac owns and/or operates a facility located at Marshall Road in Jacksonville, Pulaski County, Arkansas. Hercules owned and operated the Jacksonville facility prior to Vertac and its corporate predecessors.

8. Since the late 1940's, pesticides and herbicides have been manufactured and/or formulated at the Vertac facility. These pesticides, herbicides and/or by-products and wastes from their manufacture and formulation have been released to Rocky Branch Creek, the City of Jacksonville's publicly owned sewage treatment and collection system, and subsequently to Bayou Meto.

9. Rocky Branch Creek flows through and in some places is adjacent to the Vertac plant area and flows into Bayou Meto, which in turn flows into the Arkansas River. Hazardous substances from the Vertac facility have been conveyed to the

Jacksonville sewage treatment facility located on South Redmond Road approximately 0.3 miles west of U.S. Hwy 67/167, through the city sewage collection lines, and from the treatment facility to Bayou Meto. As described in paragraph 10 below, the analyses of samples collected during an offsite remedial investigation of the Vertac facility completed by EPA in 1985 confirm the presence of hazardous substances in Rocky Branch Creek and Bayou Meto. Rocky Branch Creek and Bayou Meto frequently flood. Floodwater can deposit contaminants in these watercourses, on the surrounding land and in nearby water impoundments.

10. Data resulting from past sampling episodes and investigations including the December, 1985, report titled "Offsite Remedial Investigation, Vertac, Inc., Jacksonville, AR," document the presence of contaminants including tetrachlorodibenzo-p-dioxin (TCDD) in the Jacksonville west wastewater treatment plant (WWTP) and associated components, Rocky Branch Creek, Bayou Meto and the contiguous floodplains. Concentrations of TCDD greater than 200 parts per billion (ppb) were found in one sampling location in the sewage collection and treatment systems. Sediments from Rocky Branch Creek and samples from Bayou Meto were also contaminated, but at lower concentrations.

11. Facility is defined at Section 101(9) of CERCLA, 42 U.S.C. §9601(9) to mean "(A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling

stock, or aircraft, or (B) any site or area where a hazardous substances has been deposited, stored, disposed of, or placed, or otherwise come to be located;..."

12. The Vertac manufacturing/formulating plant in Jacksonville, Arkansas, the City of Jacksonville's sewage collection and treatment system, Rocky Branch Creek, Bayou Meto and contiguous offsite areas are "facilities" as defined at Section 101(9) of CERCLA, 42 U.S.C. §9601(9).

13. The "Vertac Offsite Area" is comprised of the City of Jacksonville's sewage treatment and collection system, Rocky Branch Creek, Bayou Meto and contiguous offsite areas, which was sampled during EPA's offsite remedial investigation as described in paragraphs 9 and 10 of this CONSENT ORDER.

14. Respondent is Hercules Incorporated ("Hercules"), a corporation organized and existing in accordance with the laws of the State of Delaware. Hercules owned the Vertac facility described in Paragraph 7 of this CONSENT ORDER from 1961 to 1976. Hercules operated the facility from 1961 to 1971 and leased the facility to Vertac and its predecessor Transvaal, Inc. from 1971 through 1976, and sold the facility to Vertac in 1976.

15. Person is defined at Section 101(21), 42 U.S.C. §9601(21), to mean an "individual, firm, corporation, association, partnership, consortium, joint venture, commercial

entity, United States Government, State, municipality, commission, political subdivision of a State, or any interstate body."

16. The Respondent listed in Paragraph 14 above is a "person" as defined in 42 U.S.C. §9601(21).

17. The Respondent is a responsible party pursuant to Section 107(a) of CERCLA, 42 U.S.C. §9607(a).

18. TCDD is a "hazardous substance" as defined in Section 101(14) of CERCLA, 42 U.S.C. §9601(14), and is subject to the terms and provisions of CERCLA.

19. The presence of TCDD in the Vertac Offsite Area described in paragraphs 9 and 10 constitute a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. §9601(22).

20. There is evidence of children playing in the areas in and near Rocky Branch Creek immediately south of the Vertac plant. Also, there is evidence of public access to inactive portions of the WWTP.

IV. DETERMINATION

21. Based on the Findings of Fact and Conclusions of Law set out above and on a review of the entire Vertac record, EPA has determined that the actual or threatened release of hazardous substances from the Vertac Site and Vertac Offsite Area may present an imminent and substantial endangerment to the public health or welfare or the environment and that the actions required by this CONSENT ORDER are necessary to protect the public health and welfare and the environment. EPA has also determined that the Respondent will perform the required actions properly and promptly and is qualified to conduct the required actions.

V. PARTIES BOUND

22. This CONSENT ORDER shall apply to and be binding upon the Respondent and EPA, their agents, successors, and assigns, and upon all persons, contractors, and consultants acting under or for either the Respondent or EPA or both. The undersigned representative of each party to this CONSENT ORDER is fully authorized by the party whom he or she represents to enter into the terms and conditions of this CONSENT ORDER, to execute this CONSENT ORDER on behalf of such party and to legally bind that party to it.

VI. WORK TO BE PERFORMED

23. All work performed pursuant to this CONSENT ORDER shall be under the direction and supervision of a contractor with expertise in hazardous waste sampling. Prior to the initiation of sampling, the Respondent shall notify the EPA in writing regarding the identity of such contractors and/or subcontractors to be used in carrying out the terms of this CONSENT ORDER.

24. Based on the foregoing, it is hereby AGREED TO AND ORDERED that the following work shall be performed:

A. Within five (5) calendar days of the effective date of this CONSENT ORDER, the Respondent shall submit in writing to the designated EPA Project Coordinator designated in accordance with Section VII of this CONSENT ORDER for approval, a safety plan including decontamination procedures.

B. Within seven (7) calendar days of the effective date of this order, the Respondent shall implement the tasks detailed in the Fine Grid Sampling Plan ("Sampling Plan") which has been approved by the EPA and is attached to and incorporated into this CONSENT ORDER. Any deviation from the Sampling Plan shall be approved by the designated EPA Project Coordinator on site and notation of the changes shall be recorded in the Field Log Book.

C. Within ten (10) calendar days of the effective date of this CONSENT ORDER, the Respondent shall commence work.

D. The Respondent shall make every reasonable effort to facilitate the rapid return of analytical data by the use of the protocol as outlined in the attached document - "Rapid Determination of TCDD in Soil and Sediment Using Gas Chromatography and Tandem Mass Spectrometry" - an EPA procedure used for screening purposes. This procedure has been incorporated into this CONSENT ORDER. Any samples whose analytical results are equal to or greater than 1 ppb using the above method, shall be reanalyzed using an isomer specific analysis for 2,3,7,8-TCDD.

E. The Respondent shall split at least 10 percent of all samples analyzed with the EPA contractor's representative(s) as an additional QA/QC check. The split samples shall be representative of all sampled locations.

F. Within sixty (60) calendar days of the effective date of this CONSENT ORDER, the Respondent shall have completed all sampling activities under the Sampling Plan.

G. The Respondent shall submit to the EPA Project Coordinator, any raw analytical data as it is received. This information will be used to determine additional sampling and/or additional analytical procedures.

H. Within ninety (90) calendar days of the effective date of this CONSENT ORDER, the Respondent shall submit a formal written report to the EPA concerning this sampling effort.

I. Within ten (10) calendar days of the effective date of this CONSENT ORDER, the Respondent shall submit to EPA a Work Plan to study the uptake of 2,3,7,8-TCDD in the edible portions of fish in Lake Dupree.

J. Within fourteen (14) calendar days after receipt of the Fish Study Work Plan by EPA, EPA shall notify the Respondent in writing of EPA's approval or disapproval of the Fish Study Work Plan or any part thereof. In the event of any disapproval, EPA shall specify in writing both the deficiencies and any EPA recommended modifications regarding the Fish Study Work Plan.

K. Within ten (10) calendar days of the receipt of EPA notification of the disapproval of the Fish Study Work Plan, the Respondent shall amend and submit to EPA a revised plan. In the event of subsequent disapproval of the Fish Study Work Plan, EPA retains the right to complete the study pursuant to its authority under CERCLA.

L. Within ten (10) calendar days of the approval of the Fish Study Work Plan by EPA, the Respondent shall commence work.

M. The Respondent shall provide preliminary and final reports to EPA according to the schedule contained in the Fish Study Work Plan.

N. Correspondence to be submitted pursuant to this CONSENT ORDER, shall be sent by certified mail to the following addressees or to such other addressees as the Respondent or EPA hereafter may designate in writing:

- 1) Documents to be submitted to EPA should be sent to:

Robert E. Hanneschlager, P.E., Chief
Superfund Enforcement Branch (6H-E)
U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, Texas 75202-2733

- 2) Documents to be submitted to the Respondent should be sent to:

Florence K. Kinoshita, Ph.D.
Senior Toxicologist
Medical Department
Hercules Incorporated
1313 N. Market Street
Wilmington, Delaware 19894

VII. DESIGNATED PROJECT COORDINATORS

25. On or before the effective date of this CONSENT ORDER, EPA and the Respondent shall each designate a Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this CONSENT ORDER. To the maximum extent possible, communications between the Respondent and EPA and all documents; including reports, approvals, and other correspondence,

concerning the activities performed pursuant to the terms and conditions of this CONSENT ORDER; shall be directed through the Project Coordinators.

26. EPA and the Respondent each have the right to change their respective Project Coordinator. Such a change shall be accomplished by notifying the other party in writing at least 5 calendar days prior to the change.

27. The EPA Project Coordinator shall have the authority vested in the On-Scene-Coordinator by the NCP, 40 C.F.R. Part 300 et seq., including any applicable amendments or revisions thereto. This includes the authority to halt, conduct, or direct any tasks required by this CONSENT ORDER and/or any response actions or portions thereof when conditions present an immediate risk to public health or welfare or the environment. The EPA Project Coordinator shall not have the authority to modify the CONSENT ORDER but may agree to extend time for completion of required activities.

VIII. QUALITY ASSURANCE

28. The Respondent shall use quality assurance, quality control, and chain of custody procedures in accordance with the EPA Region VI Environmental Services Division Standard Operating Procedures Manual throughout all sample collection and analysis activities. This manual has been provided to the Respondent by EPA. The Respondent shall consult with EPA in planning for, and prior to, all sampling and analysis as detailed in this CONSENT

prior to the destruction of any such documents. Upon request by EPA, the Respondent shall make available to EPA such records or copies of any such records.

XI. REIMBURSEMENT OF COSTS

35. EPA shall use its best efforts to submit to the Respondent, on a monthly basis, an estimate of response and oversight costs incurred by the U.S. Government with respect to this CONSENT ORDER. At the end of this year (1988), EPA shall submit to the Respondent an accounting of all response and oversight costs incurred by the U.S. Government with respect to this CONSENT ORDER. The Respondent shall within thirty (30) calendar days of that accounting, remit a check for the amount of those costs made payable to the Hazardous Substance Response Fund. Checks should specifically reference the identity of the site and the CONSENT ORDER and be addressed to:

U.S. Environmental Protection Agency
Superfund Accounting
P.O. Box 371003M
Pittsburgh, PA 15251
Attention: Collection Officer for Superfund

36. A copy of the transmittal letter should be sent to the Project Coordinator.

XII. RESERVATION OF RIGHTS

37. Notwithstanding compliance with the terms of the CONSENT ORDER, including the completion of activities required by this CONSENT ORDER, the Respondent is not released from liability,

the data submitted to EPA by the Respondent. The Respondent shall permit such persons to inspect and copy all records, documents, and other writings, including all sampling and monitoring data, in any way pertaining to work undertaken pursuant to this CONSENT ORDER. All EPA personnel and/or their authorized representative(s) with access to the Vertac Offsite Area pursuant to this paragraph shall comply with all approved health and safety plans.

33. The Respondent may assert a confidentiality claim covering part or all of the information requested by this CONSENT ORDER pursuant to 40 C.F.R. §2.203(b). Analytical data shall not be claimed as confidential by the Respondent. Information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Respondent.

X. RECORD PRESERVATION

34. EPA and the Respondent agree that each shall preserve, during the pendency of this CONSENT ORDER and for a minimum of six (6) years after its termination, all records and documents in their possession or in the possession of their divisions, employees, agents, accountants, contractors, or attorneys which relate in any way to the work under this CONSENT ORDER, despite any document retention policy to the contrary. After this six year period, the Respondent shall notify EPA within thirty (30) calendar days

ORDER. The Respondent shall ensure that EPA personnel are allowed reasonable access to the laboratory utilized by the Respondent for analysis of samples collected pursuant to this CONSENT ORDER.

IX. SAMPLING, ACCESS, AND DATA/DOCUMENT AVAILABILITY

29. The Respondent shall make the results of all sampling and/or tests or other data generated by the Respondent, or on the Respondent's behalf, with respect to the implementation of this CONSENT ORDER, available to EPA and shall submit these results as required by Section VI, subparagraph 24(G), of this CONSENT ORDER. EPA will make available to the Respondent the results of sampling and/or tests or other data similarly generated by EPA.

30. At the request of EPA, the Respondent shall allow split or duplicate samples to be taken by EPA and/or their authorized representatives, of any samples collected by the Respondent pursuant to the implementation of this CONSENT ORDER.

31. To the extent that the Vertac Offsite Area is presently owned by parties other than those bound by this CONSENT ORDER, EPA will use its best efforts to obtain voluntary non-remunerative access agreements from such owners.

32. EPA and/or its authorized representatives shall have the authority to inspect records, operating logs, and contracts related to the work to be performed under this CONSENT ORDER; review the progress of the Respondent in carrying out the terms of this CONSENT ORDER; conduct such tests of the Vertac Offsite Area as EPA or the Project Coordinator deem necessary; and verify

if any, for any actions beyond the terms of this CONSENT ORDER taken by EPA respecting the site. EPA reserves the right to take any enforcement action pursuant to CERCLA and/or any available legal authority, including the right to seek injunctive relief, monetary penalties, and punitive damages for any violation of law or this CONSENT ORDER, and Respondent reserves its rights to oppose and defend such claims or actions, including but not limited to its rights under the CONSENT DECREE.

38. The Respondent and EPA expressly reserve all rights and defenses that they may have, including EPA's right both to disapprove of work performed by the Respondent and to request that the Respondent perform tasks in addition to those detailed in this CONSENT ORDER. In the event that the Respondent declines to perform any additional and/or modified tasks, EPA shall have the right to undertake removal actions and/or remedial actions, other than those required by this CONSENT ORDER, at any time. In either event, EPA reserves the right to seek reimbursement from the Respondent thereafter for such costs incurred by the United States or the State of Arkansas; Respondent reserves all its rights and defenses to oppose such claims or actions.

39. EPA reserves the right to bring an action against the Respondent pursuant to Section 107 of CERCLA for recovery of all response and oversight costs incurred by the United States and the State of Arkansas in connection with response activities conducted pursuant to CERCLA at this site.

40. Respondent expressly reserves any and all rights of contribution it may have against other parties not signatories to this CONSENT ORDER for the costs incurred in carrying out the activities under this CONSENT ORDER.

XIII. OTHER CLAIMS

41. Nothing herein is intended to release any claims, causes of action or demands in law or equity against any person, firm, partnership, or corporation not a signatory to this CONSENT ORDER for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Vertac Offsite Area.

42. This CONSENT ORDER does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

XIV. OTHER APPLICABLE LAWS

43. All actions required to be taken pursuant to this CONSENT ORDER shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations unless an exemption from such requirements is specifically provided herein.

XV. INDEMNIFICATION OF EPA

44. The Repondent agrees to indemnify and save and hold EPA, its agents and employees, harmless from any and all claims or

causes of action arising from or on account of acts or omissions of the Respondent, its agents or assigns, in carrying out the activities pursuant to this CONSENT ORDER. EPA is not a party in any contract involving the Respondent at the Site.

XVI. STIPULATED PENALTIES

45. For each day that Respondent fails to submit a report or document or otherwise fails to achieve the requirements of this CONSENT ORDER, the Respondent shall pay into the Hazardous Substances Response Fund, the sums set forth below as stipulated penalties. Checks should specifically reference the CONSENT ORDER and be addressed to:

U.S. Environmental Protection Agency
Superfund Accounting
P.O. Box 371003M
Pittsburgh, PA 15251
Attention: Collection Officer for Superfund

A copy of the transmittal letter should be sent to the Project Coordinator.

46. Said stipulated penalties shall accrue in the amount of \$1,000.00 per day for the first week and \$2,000.00 per day for each week thereafter for noncompliance with a requirement of this CONSENT ORDER.

47. The stipulated penalties set forth in this Section do not preclude EPA from electing to pursue any other remedies or sanctions which may be available to EPA by reason of the Respondent's failure to comply with any of the requirements of this CONSENT ORDER. Such remedies and sanctions include a suit for

statutory penalties as authorized by Section 106 of CERCLA, a federally funded response action, and a suit for reimbursement of costs incurred by the United States and the State of Arkansas.

XVII. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

48. The effective date of this CONSENT ORDER shall be the date on which it is signed by EPA. This CONSENT ORDER may be amended by mutual agreement of EPA and the Respondent. Such amendments shall be in writing and shall have as the effective date, that date on which such amendments are signed by EPA.

XVII. TERMINATION AND SATISFACTION

49. The provisions of the CONSENT ORDER shall be deemed satisfied and this CONSENT ORDER, with the exception of the reservation of rights in Section I, Subparagraph 4 and Section XII shall terminate upon the Respondent's receipt of written notice from EPA that the Respondent has demonstrated, to the satisfaction of EPA, that all of the terms of this CONSENT ORDER, including any additional tasks which EPA has determined to be necessary, have been completed. Respondent may request EPA in writing to find that this CONSENT ORDER has been satisfied. EPA shall respond within sixty (60) days of such request.

XIX. FORCE MAJEURE

A. Respondent's activities under this CONSENT ORDER shall be performed within the time limits set forth herein, unless

performance is delayed by events which constitute a Force Majeure. For purposes of this CONSENT ORDER, a Force Majeure is defined as an event arising from a cause beyond the control of Respondent that could not have been prevented by the exercise of due diligence. Delays encountered by Respondent in securing any permits that may be required by local, state, federal, or other governmental authority in order to perform the requirements of this CONSENT ORDER, may be considered circumstances beyond the control of the Respondent, provided that Respondent has exercised due diligence.

B. Increased costs or expenses associated with implementation of the requirements of this CONSENT ORDER shall not be considered circumstances beyond the control of the Respondent. Respondent's time period to perform the requirements affected by the Force Majeure shall be extended at a maximum by the time period of the delay attributable to the Force Majeure; provided, however, that no deadline shall be extended beyond the period of time that is reasonably necessary for completion of those requirements on a schedule calculated to minimize delay.

C. Respondent shall notify EPA in writing as soon as reasonably possible, but in no event more than seven (7) calendar days from the inception of the event which Respondent contends constitutes a Force Majeure as defined herein. Such notice shall describe:

1. The event Respondent considers to be a Force Majeure, including a statement of Respondent's rationale for interpreting such event as a Force Majeure as defined herein;

2. The measures taken and to be taken to prevent or minimize the delay;
3. The timetable by which those measures in Section XIX. C.2. above will be implemented, and;
4. The date by which, or the time period within which, Respondent proposes to complete the requirements to which the deadline applied, which shall not be a date beyond the time period reasonably necessary for completion of those requirements on a schedule calculated to minimize the delay.

D. Failure of the Respondent to fully comply with the provisions of this Section of this CONSENT ORDER, styled Section "XIX. Force Majeure", shall invalidate and nullify any claim of Force Majeure.

Dated, entered, and effective as of this 28th day of June,
1988, with the agreement and consent of all parties.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Robert E. Layton Jr.
Robert E. Layton Jr., P.E.
Regional Administrator
United States Environmental Protection Agency, Region VI

AGREED TO:

HERCULES INCORPORATED

BY: David S. Hinesworth Chem. Branch 6/27/88
Name Title Date

ATTACHMENT
VERTAC OFF-SITE AREAS
FINE GRID SAMPLING PLAN
MAY 1988

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION VI, DALLAS, TEXAS